

REMARKS

Claims 5-6 and 10-19 and 35 are cancelled. Claims 1-4, 7-9, and 20-38 are pending. Favorable consideration is respectfully requested.

At the outset, Applicants thank Examiner Fortuna for the helpful comments in the outstanding Office Action.

Claims 1 and 34 are amended to include the embodiments of originally-filed Claims 5 and 6. No new matter is believed to be introduced by the amendment.

Before moving forward, it should be noted that the Office, in the last Office Action, has failed to address any portion of the traversal set forth by Applicants in the Response dated October 31, 2008. Applicants will augment the traversal with additional reasons for patentability of the claimed invention below. Applicants respectfully request the Office to respond to Applicants traversal set forth herein so that Applicants may have adequate information if further responses are required to address specific positions of the Office.

The rejection of Claims (the Office does not provide this information) as obviousness-type double patenting in view of Claims 1-14 and 20-23 of copending US patent application number 11/657,272 (US'272) is believed to be obviated in view of the amendments to the claims above. Accordingly, Applicants respectfully request withdrawal of this ground of invention.

If the Office decides to maintain this rejection mentioned above, Applicants respectfully request that the Office holds these rejections in abeyance (since these rejections are on a provisional basis) until either the present case or the copending application US'387 receives an indication of allowability.

The rejections of Claims 10-19 under 35 USC 102(b) over Lindahl (US'138) or Kempf (US'397) is believed to be obviated by the cancellation of these claims. Withdrawal of this ground of rejection is respectfully requested.

The rejections of Claims 1-27 under 35 USC 102(b) or 103(a) over US 4,599,138 to Lindahl (US'138) alone or in any combination with US'397 is traversed below.

It is important to note that one requirement of the claimed invention is the metal ion activated peroxide. If all metal ion is either removed and/or reduced and/or complex bonded, the metal is not available for activating peroxide.

Applicants have amended Claim 1 to include the treatment temperature and the treatment time. Lindahl absolutely fails to disclose or suggest the bleaching treatment and time, much less that metal ion activation of the peroxide occurs at all.

Lindahl merely discloses adding a bleaching agent to a disc refiner 14 and bleaching a pre-treated fiber via a duct 15 while refining and after the pretreatment (i.e. impregnation step 5) (see Column 8, lines 1-3; Column 9, lines 3-8; Column 11, lines 12-24; Column 12, line 65 to Column 13, line 9; and Column 14, line 58, to Column 15, line 2 of Lindahl). The Office has completely mischaracterized Lindahl because the reaction conditions that the Office cites within Lindahl have nothing to do with the reaction conditions in the presence of the bleaching aid. Instead, the reaction conditions cited by the Office are related to the pretreatment (i.e. impregnating step). Lindahl discusses pretreating (i.e. impregnating) a fiber with a heavy metal ion complexing agent and a metal ion reducing agent in a screw press 5 containing screws 6 (See column 7, lines 23-27 of Lindahl). This impregnation occurs at a pH of from 4 to 9.5 (see Column 3, lines 31-35 and lines 45-46 of Lindahl). Therefore, this is the impregnation conditions, not the conditions as the chips are bleached/refined. Lindahl also teaches pretreating (i.e. impregnating), then heating the pretreated fibers in a digester with steam or compressed air for about 1 to about 15 minutes at a temperature of from 90 to 180°C, and after the steam/compressed air treatment (see Column 4, lines 33-34, see Lindahl) bleaching simultaneously while refining at a disc refiner (see Column 4, lines 37-38 of Lindahl). Accordingly, the above-mentioned times and temperatures cited by the Office are not the times and temperatures for the treatment with the bleaching aid. Instead, these times and temperatures are the conditions under which the pretreated fibers are treated with steam or compressed air prior to exposing the fibers to the bleaching aid.

In light of the above, it is clear that the Office has not provided any evidence whatsoever to sustain the rejection in view of Lindahl because the Office has completely mischaracterized this reference.

Not only does Lindahl fail to disclose the present invention, Lindahl teaches away from the claimed invention. Applicants respectfully submit that the objective of Lindahl is to either remove the heavy metal altogether or sequester them away through bonding with a metal ion chelating agent. In direct contrast to the claimed invention, Lindahl clearly demonstrates to reduce the heavy metal as much as possible and sequester the remaining concentration of the heavy metal via complexation via the use of metal-complexing agents such as diethylenetriamine pentaacetic acid. This is fully described at column 6, lines 23-59. In fact, there is an example within Lindahl (Example I and Table II) that supports Applicants position because Lindahl states, in characterizing this Example, at column 10, line 68, to column 11, line 2:

“The heavy metal ions remaining in the chips were furthermore complex bonded.”

This completely contradicts the Office’s position that there are metal ions free to activate the peroxide. Again, it is clear that the objective of Lindahl is to remove or reduce as much heavy metal ion as possible, and sequester the rest in complexes. If the heavy metal ion is sequestered in complex via complex bonded, it can not possibly be available to activate the peroxide so as to treat the pulp as claimed.

In light of the above, Lindahl clearly teaches away from the claimed invention because it fails to suggest the claimed invention to the skilled artisan. The skilled artisan would not be motivated to modify the disclosure of Lindahl towards the claimed invention because Lindahl teaches away from doing so by disclosing the removal or sequestering of metal ions prior to or during bleaching. The skilled artisan would also have no expectation of success for modifying Lindahl against its disclosure and treating fiber with a metal ion activated peroxide, especially since Lindahl discloses that doing so would lead to the degradation of the peroxide. Accordingly, Lindahl teaches away from the claimed invention and the skilled artisan would have no expectation of success given Lindahl’s disclosure. These are the two critical tests that must be passed prior to the Office setting forth a prima facie case of obviousness. In the present

case, Lindahl fails both tests and no prima facie case of obviousness can possibly be set forth using Lindahl as its foundation. In sum, Lindahl fails to disclose all of the claim limitations and completely fails to provide a prima facie case of obviousness. Accordingly, withdrawal of this ground of invention is respectfully requested.

The Office also relies on US'397 to Kempf and combines the same with Lindahl. This rejection is traversed below.

Applicants maintain their traversal based, in part, that US'138 and US'397 are not able to be combined because they teach away from doing so. Applicants completely disagree with the Examiner's position that the primary reference, US'138, only teaches that reduction of heavy metals in the process to a degree in which the effectiveness of the peroxide is degraded or reduced (citing Table II). Applicants respectfully submit that the Office is picking and choosing portions of the US'138 to suit itself and not taking US'138's disclosure in its entirety. Applicants respectfully submit that the objective of US'138 is to either remove the heavy metal altogether. Alternatively, US'138 clearly demonstrates to reduce the heavy metal as much as possible and sequester the remaining concentration of the heavy metal via complexation via the use of metal-complexing agents such as diethylenetriamine pentaacetic acid. This is fully described at column 6, lines 23-59. In fact, the very example within US'138 that the Office relies upon in the outstanding Office Action (Example I and Table II) supports Applicants position because US'138 states, in characterizing this Example, at column 10, line 68, to column 11, line 2:

"The heavy metal ions remaining in the chips were furthermore complex bonded."

This completely contradicts the Office's position. Again, it is clear that the objective of US'138 is to remove or reduce as much heavy metal ion as possible, and sequester the rest in complexes. If the heavy metal ion is sequestered in complex via complex bonded, it can not possibly be available to treat the pulp.

As admitted by the Office, US'397 clearly teaches peroxide treated pulp and the addition of metal ions are desired for selective oxidative attack. Accordingly, US'397 requires metal ion

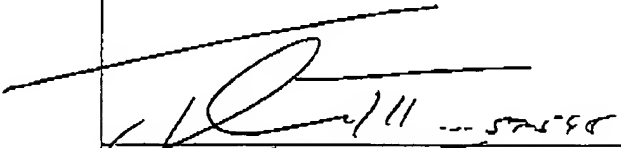
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that is not removed or reduced as much as possible, nor completely sequestered in complexes via complex-bonding so that the metal ions drive selective oxidative attack. In contrast, US'138 discloses the removal or reduction of metal ions as much as possible and sequestering the remaining metal ions via complex and complex bonding. These disclosures could not contrast one another more clearly; and therefore, no *prima facie* case of obviousness can be made therefrom their combination. Accordingly, Applicants respectfully request withdrawal of this ground of rejection.

Applicants respectfully submit that the present application is now in condition for allowance. Favorable reconsideration is respectfully requested. Should anything further be required to place this application in condition for allowance, the Examiner is requested to contact below-signed by telephone.

Please charge the amount of \$490.00 required for any request for extension of time to our Deposit Account No. 09-0525. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R. 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit the difference to our Deposit Account No. 09-0525. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time.

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